

Exhibit A

Declaration of William R. Meintel

I, William R. Meintel, hereby declare as follows:

- 1. I am William R. Meintel, President of TechWare, Inc.**
- 2. I hold a BS degree in electrical engineering and have over 29 years experience in the communications field. I completed a 20-year career with the Federal Communications Commission (FCC) where I held a number of engineering positions. In addition to serving as a field engineer for the FCC, I spent the last 10-years of my FCC career in the Mass Media Bureau's Policy and Rules Division. While there, I served as the Division computer expert in addition to my engineering responsibilities that included extensive involvement in a number of complex domestic and international spectrum planning matters.**
- 3. Since entering private practice in 1989, I have been heavily involved in spectrum planning for the broadcast industry. During that period I co-authored a report for the NAB on spectrum requirements for Digital Audio Broadcasting (DAB), created a plan for independent television broadcasting for Romania and have been extensively involved in spectrum planning for digital television (DTV). My involvement in DTV has included the development of the sophisticated computer models used by both the broadcast industry and the FCC for DTV planning as well as serving as a technical consultant to the broadcast industry. In addition to providing technical consulting services to a number of individual domestic clients, I also have been contracted by the Brazilian Association of Broadcasters to provide DTV planning software and technical consulting services to assist Brazilian DTV spectrum planning. I have also authored a number of papers and articles and made numerous presentations on subjects related to spectrum planning.**
- 4. I prepared the accompanying FURTHER ENGINEERING STATEMENT at the request of the Television Affiliates Associations for use by the Television Affiliates Associations in response to the Notice of Proposed Rule Making, FCC 98-302, released November 17, 1998, in the matter of Satellite Delivery of Network Signals to Unserved Households for Purposes of the Satellite Home Viewer Act.**
- 5. The further engineering statement is true and correct to the best of my information, knowledge, and belief.**

This the 20th day of December, 1998.


William R. Meintel

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Satellite Delivery of Network Signals to)	CS Docket No. 98-201
Unserved Households for Purposes of the)	RM No. 9335
Satellite Home Viewer Act)	RM No. 9345
)	
Part 73 Definition and Measurement of)	
Signals of Grade B Intensity)	

FURTHER ENGINEERING STATEMENT OF WILLIAM R. MEINTEL

I have prepared this Further Engineering Statement on behalf of the Television Network Affiliate Associations, representing the ABC Television Affiliates Association, the CBS Television Network Affiliates Association, the Fox Television Affiliates Association, and the NBC Television Affiliates Association, in support of the Affiliate Associations' Reply Comments in the above-captioned proceeding. I hold an engineering degree, possess more than 29 years of experience in the communications field, and previously worked for the Federal Communications Commission for 20 years. I have been extensively involved in spectrum planning for DTV and have special expertise in sophisticated computer models, including the Longley-Rice Irregular Terrain Model.

Defining Grade B Signal Strength Levels

In the engineering statement provided by Hatfield & Dawson in support of the comments filed by the Satellite Broadcasting and Communications Association, it

is opined that the signal-to-noise ratio used to determine the Grade B signal strength values should be 34 dB, instead of the 30 dB used in the Commission's original planning factors. Hatfield & Dawson base this opinion on a report by Harry Fine in which Mr. Fine reported on his further analysis of the TASO Panel 6 data. However, it is critical to note that the 34 dB value found in Mr. Fine's report is for the case where 90% of the viewers rated the picture quality as passable and not the median viewer that was, and is, used to define Grade B. In fact, the Fine report indicates that 50% of the viewers rated the picture as acceptable with a signal-to-noise ratio of only 28 dB, which approximately agrees with the 27.5 dB originally specified in the 1959 TASO report. See Comments of the National Association of Broadcasters, Engineering Statement of Jules Cohen (Exhibit C), at 3. In view of this, the values for Grade B service as determined from the planning factors are actually 2 dB to 2.5 dB too *high*, not 4 dB too low.

Hatfield & Dawson further state that an additional 3 dB should be added to account for the use of splitters. Although there is loss to be expected when splitters are employed, the point is irrelevant since the Grade B values are intended to provide service to a single receiver. If a particular household happens to have more than one receiver in an area with Grade B level service, then the use of either an antenna-mounted pre-amplifier or an in-line amplifier is appropriate, or, in the alternative, additional antennas. The determination of an unserved household for SHVA purposes must be based on the assumed use of a single receiver with a proper antenna system, otherwise, carried to the extreme, households could add various devices to the point where no level of signal would provide acceptable

service.

In addition, Hatfield & Dawson indicate that the line loss values in the planning factors should be increased. However, the most recent work by the FCC (DTV planning) confirmed that the original values are still valid. In fact, as shown in OET Bulletin No. 69, there should actually be a reduction of 1 dB, down to 4 dB, for UHF.

Hatfield & Dawson also show an increase in the time fading correction (used to adjust $F(50/50)$ to $F(50/90)$) to a level that is only valid at great distances from the transmitter, distances that are, in reality, beyond the traditionally-predicted Grade B contour of almost all stations. The "planning factors" recommended by Hatfield & Dawson also contain values for receiver noise figures that are virtually identical to those originally established in 1952, despite the availability of substantial documentation that receiver noise figures in all bands are considerably less in modern receivers.

It has also been stated that the SHVA does not mandate a specific antenna height and that receiving antenna height does not enter into the planning factors. The SHVA does mandate that for the household to be considered as unserved the over-the-air signal level must be less than Grade B. Since Grade B is defined as the median ambient field strength at 30 feet in the air, the SHVA does in fact specify a specific height. In addition, although not a specific value in the planning factors, this height is important since the planning factors were designed to establish the required level of field strength 30 feet above the ground.

The Grade B values derived from the "planning factors" recommended by

Hatfield & Dawson, when used in conjunction with their recommended variability parameters for the Longley-Rice predictive model, would result in a very small number of households that would be considered as served by local broadcasters from what the Commission, engineers, broadcasters, and the general public experience in reality. I have conducted an analysis of all full service stations in the continental United States (but not including their translators) using the proposed Grade B field strength values of 70.75 dBu for low VHF, 76.5 dBu for high VHF, and 92.75 dBu for UHF, together with a 90% time variability factor and a 95% confidence factor. The results of this analysis indicate that the predicted "Grade B" service areas on a nationwide basis would be reduced, in the aggregate, by more than 80% of the areas now contained within the Commission's traditionally-predicted Grade B contours. Accompanying this reduction in area is, also in the aggregate, an almost 58% loss in the population predicted to be served. Not only is this loss of service dramatic, it needs to be kept in mind that it occurs even with the conservative approach of only considering the areas inside the traditionally-predicted Grade B contours. These reductions would be even greater if the areas outside the predicted Grade B contours were considered, since it has been shown that many stations provide Grade B level service well beyond their traditionally-predicted contours.

As can be seen, the proposed parameters would completely redefine the broadcast service as one that is intended to service only a town or maybe a neighborhood, instead of a region. All of the proposed changes are aimed at redefining Grade B to mean a perfect service, instead of an acceptable service to

the median observer as the Commission originally intended.

Prediction Techniques

In the *Notice of Proposed Rule Making*, it was suggested that the Longley-Rice model as used for DTV planning might be appropriate as a prediction methodology for SHVA purposes. It appears that there is some misunderstanding about how the Longley-Rice model was used for DTV planning. The title of the document that describes the Longley-Rice model (NTIA Report 82-100) is "A Guide to the Use of the ITS Irregular Terrain Model in the Area Prediction Mode." Because of this title, it seems that some have taken this to mean that the DTV planning itself was performed using an area prediction model. In fact, the report title is somewhat misleading since the report actually contains information not just on the area prediction mode but also information on the point-to-point mode that was used for DTV planning. In the DTV planning, service was evaluated on a point-to-point basis at a very large number of specific points, each representing a very small portion of a station's service area. The results for each station were then determined by summing the small areas where service was predicted. The model as generally used for DTV planning is appropriate for point-to-point SHVA predictions, although calculations should not be restricted only to the area within a station's traditionally-predicted Grade B contour for SHVA purposes.

Hatfield & Dawson have also stated that the Longley-Rice model as used for DTV planning assumes service when a calculation is considered outside certain preset limits on reliability. This is incorrect. In such circumstances, the

Longley-Rice model actually provides a prediction, but it sets a flag that the prediction may not be reliable. In these cases, the FCC's computer program that evaluated the Longley-Rice predictions was designed to ignore the flagged values and assume service at that point. This was a policy decision and not something built into the Longley-Rice model, since the model does not, strictly speaking, predict service but, instead, predicts a field strength value based on the input parameters. It is up to the user (or, in the FCC's DTV case, another computer module) to evaluate that result and decide if the value represents service.

Further analysis of the Longley-Rice predictions indicates that in most cases the flags signifying possibly unreliable values appear to be false alarms. It has been observed that in such cases the predicted values appear to be in reasonable agreement with other reliable predictions in the area surrounding the point. It always needs to be kept in mind that a predictive model is not a substitute for an actual measurement of signal strength at an individual location, but only a tool to be used appropriately by recognizing its limitations. This is especially true in a complex area such as propagation.

Some have suggested that other models may be more appropriate for SHVA purposes. However, it is important to consider that Longley-Rice is a well-documented and stable model that is readily available and not proprietary. All of these features would be a requirement of any model that would be used to predict unserved locations for SHVA purposes. Some have also suggested that enhancements, such as the inclusion of land use and/or structure data, would yield better results. This would be true of an ideal model relying on perfect data.

Unfortunately, our existing models and data are far from perfect. Moreover, extreme caution is advised in this area since the existing models already have some such data built into them due to the empirical data used in their development. In view of this, unless a method is devised to take this built-in data into account, the resulting predictions are very likely to be unreliable.

In using Longley-Rice or some other model, it has been suggested that the time variability input be set to a value higher than 50%. This, however, would not result in a prediction of Grade B field strengths since the Grade B field strength values have already been adjusted to represent service 90% of the time. Likewise, it has also been recommended that the confidence parameter in Longley-Rice be set above 50%. This again would not result in a Grade B prediction but in a value that would represent some higher level of service. It is further noted that if the TIREM model is used, as some have proposed, there is no input for a level of confidence in that model at all, since its only probability input is for time variability.

It is also worth observing that the Commission's Grade B values are related to an area prediction model, the F(50/50) curves, and, therefore, include some margin to compensate for that fact. Therefore, using a predictive model in point-to-point mode, where the actual terrain path is well defined, tends to reduce the margin requirement. Therefore, there is a likelihood that lower field strength values predicted with such a model might actually produce the same level of service as the higher values based on the area prediction model.

Measurements

The satellite industry has again suggested that measurements could be made using the consumer's antenna installation and receiver. Although this method *could* be used to determine that a household is served, *it is a completely unreliable method to determine unserved households*. If a measurement is to determine that a household is unserved, then the measurement procedure must be well defined, repeatable, consistent with good engineering practice, and not subject to interpretation. Any method that uses an existing installation is not acceptable since it could include faulty components or devices such as splitters that reduce its effectiveness. In addition, the antenna may not be at an acceptable height or may not be properly oriented for optimum performance.

Exhibit B

SETTLEMENT AND COMPLIANCE AGREEMENT

Between

**ABC, Inc., CBS Broadcasting Inc., Fox Broadcasting Company, National
Broadcasting Company, and Certain ABC, CBS, Fox, and NBC Network
Stations; the National Association of Broadcasters; the ABC Television
Affiliates Association, the CBS Television Network Affiliates Association, the
Fox Television Affiliates Association, and the NBC Television Affiliates
Association**

and

Primestar Partners, L.P., Netlink USA, and Telluride Cablevision, Inc.

SCHEDULE 7

PROCEDURES FOR SIGNAL INTENSITY TESTING

The Broadcasters and the Satellite Carriers agree to the following procedure for conducting signal intensity tests. The parties' agreement to these procedures as part of this Agreement is a compromise, and is without prejudice to their individual positions about the best way of carrying out signal intensity tests.

a. An "interested party" (e.g. installer or station engineer, but not a customer) may perform the test according to the protocol set forth below. The other side must be invited on at least 45 calendar days' written notice. If the party performing the test prefers, it may use a neutral third party engineer.

b. A standardized antenna -- the Channel Master Model 3016 Antenna along with 50 feet of RG/6U cable, or such other standardized antenna as the parties may agree to -- rather than homeowner's own system, shall be used for the test. Such list may be updated by mutual agreement. The antenna must be pointed in the direction in which the strongest signal is available from the station in question.

c. The meter must have been properly calibrated by being sent back to the manufacturer for recalibration within the previous two years.

d. A cluster of five measurements shall be taken either (at the tester's option) (i) as close to the home as possible given safety and other constraints (probably in the driveway in most cases) or (ii) at the nearest public road from which measurements can be safely made; required minimum distance between five points small enough to make testing practical.

e. The median value among the five measurements shall be determinative. There shall be no deduction of standard deviation. The values for Grade B intensity shall be those set forth in 47 C.F.R. § 73.683(a), as in force on June 1, 1997.

f. The measurement shall be taken at approximately 30 feet above ground for a two-story or higher home and at approximately 20 feet above ground for a one-story home.

g. A table providing the minimum output values required to establish Grade B intensity for the approved equipment is attached hereto as Exhibit A.

h. If there is a disagreement between the Broadcaster representative and the Satellite Carrier representative about whether proper procedures were followed, it shall be resolved by having a mutually acceptable neutral third party engineer do a new test. If the parties are unable to agree on a neutral third party engineer, the parties hereby nominate James Rocap or his designee at Miller Cassidy Larroca & Lewin to nominate such a neutral engineer, using

informal binding arbitration to be resolved within 10 business days. The loser will pay the costs of both the original test and the neutral test.

i. The parties agree that under no circumstances shall any party be entitled to require another party to pay more than \$150 for a signal intensity test for a single location. If a neutral engineer is required to resolve the dispute, a separate \$150 maximum shall be applicable.

j. Payment of the costs of signal intensity testing under the "loser pays" provision of this agreement shall be made within 45 days of receipt of a written invoice for such costs.

ATTACHMENTS: EXHIBITS A-B

EXHIBIT A

75-OHM METER READING FOR GRADE B SIGNAL STRENGTH CHANNEL MASTER MODEL 3016 ANTENNA AND 50 FEET OF RG/6U CABLE						
TV Channel	Visual		Antenna	Line	Meter Reading	
	Carrier (MHz)	Wavelength (meters)	Gain (dBd)	Loss (dB)	(dBm)	(dBuV)
2	55.25	5.43	2.2	1.1	-61.8	45.8
3	61.25	4.90	0.2	1.0	-64.6	44.0
4	67.25	4.46	1.3	1.2	-64.5	44.1
5	77.25	3.88	2.0	1.3	-65.1	43.5
6	83.25	3.60	1.0	1.3	-66.8	41.8
7	175.25	1.71	8.1	1.9	-57.7	50.9
8	181.25	1.66	8.8	2.0	-57.4	51.2
9	187.25	1.60	8.7	2.0	-57.8	50.8
10	193.25	1.55	8.8	2.0	-58.0	50.6
11	199.25	1.51	8.0	2.1	-59.1	49.5
12	205.25	1.46	6.9	2.1	-60.5	48.1
13	211.25	1.42	7.2	2.2	-60.6	48.0
14	471.25	0.64	6.0	3.5	-62.0	46.6
15	477.25	0.63	5.8	3.5	-62.3	46.3
16	483.25	0.62	5.9	3.5	-62.3	46.3
17	489.25	0.61	6.0	3.6	-62.4	46.2
18	495.25	0.61	6.3	3.6	-62.3	46.3
19	501.25	0.60	6.5	3.6	-62.2	46.4
20	507.25	0.59	6.5	3.6	-62.3	46.3
21	513.25	0.58	6.3	3.7	-62.7	45.9
22	519.25	0.58	6.7	3.7	-62.4	46.2
23	525.25	0.57	6.2	3.7	-63.0	45.6
24	531.25	0.56	6.0	3.7	-63.3	45.3
25	537.25	0.56	6.1	3.7	-63.3	45.3
26	543.25	0.55	6.1	3.8	-63.5	45.1
27	549.25	0.55	6.1	3.8	-63.6	45.0
28	555.25	0.54	6.5	3.8	-63.2	45.4
29	561.25	0.53	7.3	3.9	-62.6	46.0
30	567.25	0.53	7.5	3.9	-62.5	46.1
31	573.25	0.52	8.0	3.9	-62.1	46.5
32	579.25	0.52	7.9	3.9	-62.3	46.3
33	585.25	0.51	8.0	4.0	-62.4	46.2
34	591.25	0.51	8.0	4.0	-62.5	46.1
35	597.25	0.50	8.0	4.0	-62.6	46.0
36	603.25	0.50	8.1	4.0	-62.6	46.0
38	615.25	0.49	8.4	4.1	-62.5	46.1
39	621.25	0.48	8.8	4.1	-62.2	46.4
40	627.25	0.48	9.0	4.1	-62.1	46.5
41	633.25	0.47	8.8	4.2	-62.5	46.1
42	639.25	0.47	8.7	4.2	-62.7	45.9
43	645.25	0.46	8.9	4.2	-62.6	46.0
44	651.25	0.46	9.0	4.2	-62.5	46.1
45	657.25	0.46	9.1	4.3	-62.6	46.0
46	663.25	0.45	9.3	4.3	-62.5	46.1
47	669.25	0.45	9.4	4.3	-62.5	46.1
48	675.25	0.44	9.5	4.3	-62.4	46.2
49	681.25	0.44	9.1	4.3	-62.9	45.7
50	687.25	0.44	9.4	4.3	-62.7	45.9
51	693.25	0.43	9.1	4.4	-63.2	45.4
52	699.25	0.43	9.1	4.4	-63.3	45.3
53	705.25	0.43	8.9	4.5	-63.6	45.0
54	711.25	0.42	8.5	4.5	-64.1	44.5
55	717.25	0.42	8.2	4.6	-64.6	44.0
56	723.25	0.41	8.0	4.6	-64.8	43.8
57	729.25	0.41	8.0	4.6	-64.9	43.7
58	735.25	0.41	8.4	4.6	-64.6	44.0
59	741.25	0.40	8.8	4.6	-64.3	44.3
60	747.25	0.40	9.2	4.7	-64.0	44.6
61	753.25	0.40	9.7	4.7	-63.6	45.0
62	759.25	0.40	9.5	4.7	-63.9	44.7
63	765.25	0.39	9.5	4.7	-63.9	44.7
64	771.25	0.39	9.3	4.7	-64.2	44.4
65	777.25	0.39	9.2	4.8	-64.5	44.1
66	783.25	0.38	9.7	4.8	-64.0	44.6
67	789.25	0.38	9.5	4.8	-64.3	44.3
68	795.25	0.38	8.3	4.9	-65.7	42.9
69	801.25	0.37	6.9	4.9	-67.1	41.5

Exhibit C

FCC Satellite Home Viewer Act Proceeding
Joint Affiliate Association Comments
CS Docket No. 98-201
Rm No's 9335 & 9345

AFFIDAVIT OF LAWRENCE BEHR

I, Lawrence V. Behr, having been duly sworn, state as follows:

1. I am CEO of Lawrence Behr Associates, Inc., a telecommunications consulting firm in Greenville, North Carolina. I have provided technical consultation to communications companies throughout the nation and have submitted filings to the Commission for over 30 years.

2. I was retained in the summer of 1998 by ABC, Inc. in the copyright infringement case of ABC, Inc. v. PrimeTime 24 to verify certain field strength measurements taken and video recordings made by PrimeTime 24's consulting engineer, Robert D. Weller of the firm Hammett and Edison, at certain subscriber households located within the predicted Grade B contour of Station WTVD, Durham, North Carolina.

3. PrimeTime 24's consulting engineer had tested sixteen sites, two of which were located outside WTVD's predicted Grade B contour. I was asked to verify the test results at the fourteen sites located within WTVD's predicted Grade B contour. I requested permission from each homeowner and received permission to test from twelve homeowners. Attachment A is a list of the twelve sites tested indicating in Column 1 the location of each site and the homeowner's name, in Column 2 the field strength

measurement taken by me, and in Column 3 the distance of each site from WTVD's transmitter site.

4. For purposes of conducting tests and making video recordings, I used a conventional mid-range priced Yagi antenna purchased from Radio Shack at a cost of under \$80.00, a conventional Panasonic VCR tuner, and a Panasonic S-VHS Camcorder with an NEC video monitor. Field intensity measurements were taken by using a Sencore SL750A TV signal analyzer. The antenna was raised 30 feet above ground at a location as close as practical to each home. I utilized the Commission's cluster testing methodology specified in Section 73.686 of the Rules, which was the method used by PrimeTime 24's engineers. In general, antenna system parameters were chosen to closely match the FCC planning factors originally used by the FCC to establish the value of the Grade B contour. This test configuration also simulated closely a correctly installed and oriented consumer rooftop antenna system.

5. WTVD operates on Channel 11, and a field strength value of 56 dBu constitutes a Grade B signal under Section 73.683. Only two of the twelve sites I tested indicated a field strength value less than 56 dBu (Site 15 located 68.8 miles from the WTVD transmitter and Site 18 located 54.7 miles from the WTVD transmitter). Other sites located at distances more than 60 miles from WTVD's transmitter yielded *greater* than a 56 dBu field strength value; e.g., Site 4 located 71.8 miles from the transmitter produced a 65.6 dBu field strength value and Site 9 located 64 miles from WTVD's transmitter produced a 62.7 dBu field strength value.

6. After the tests were completed, I produced a comparison videotape placing video recordings of WTVD at each site as made by PrimeTime 24's engineer side by side

with the video recording I made for that site. It is that comparison videotape which is being submitted with this affidavit.

7. The comparison videotape illustrates the difference in reception and picture quality when properly-functioning and properly-connected equipment is used and when the receiving antenna is oriented toward the station's transmitter (typical of my recordings); and when poorly-oriented antennas and defective home facilities are used (typical of PrimeTime 24's recordings). In viewing the videotape, the first picture for each site is the video recording made by PrimeTime 24's engineer at each site, which is followed by the video recording I made at that site. This is the sequence of pictures for each site. Attachment B is a map prepared by PrimeTime 24's engineers identifying the location of each site tested.

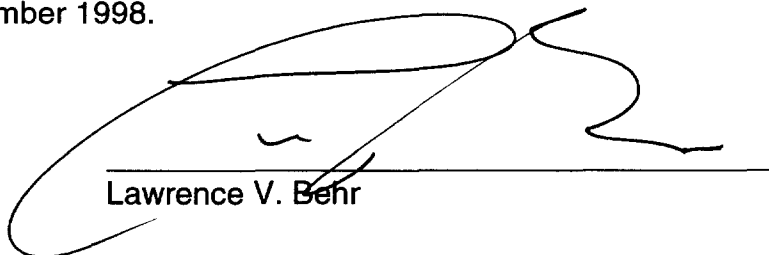
8. I discovered in conversations with the various homeowners that PrimeTime 24's engineer did not (as his own field notes confirmed) orient the homeowner's antenna toward WTVD's tower. That accounts for much of the difference in the quality of reception. I also discovered that in home after home, the antenna cable and related components were defective, corroded, and often not properly connected to the TV set or antenna.

9. Finally, the videotapes-- which, themselves, reflect minor degradation due to the recording process from the live pictures I observed on my television receiver-- confirm that a 56 dBu picture is a picture of excellent quality. At Site 14 in Buffalo Junction, Virginia, which is located 70.1 miles from WTVD's transmitter site, I recorded a field strength value of 56.9 dBu-- just above the bare 56 dBu minimum for a Grade B picture. The excellent picture quality-- even with degradation resulting from the videotape-- is self-evident. In fact, the quality of the picture at Site 14 is comparable, if not superior, to the

quality of the picture at Site 13 which is located only 21.4 miles from WTVD's tower and which yielded a 70.7 dBu field strength value.

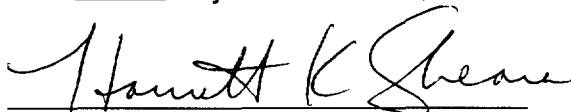
10. The videotape confirms that a Grade B off-the-air picture is an excellent picture-- and is vastly superior in quality to that which I have observed in many cable households. The videotape illustrates, as well, that improper antenna orientation and installation deficiencies may result in dramatically inferior reception. And finally, the videotape demonstrates that no uniformity of standards for signal measurement could ever be achieved by use of a homeowner's existing equipment. For there to be any integrity in the signal measurement process, uniform standards must be specified for all equipment used in the testing.

This the 18th day of December 1998.



Lawrence V. Behr

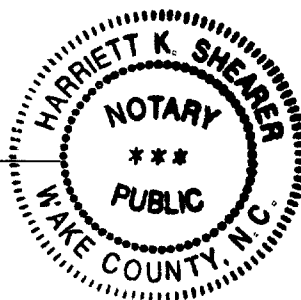
Subscribed and sworn to before me
this 18th day of December, 1998.



Notary Public

My Commission Expires:

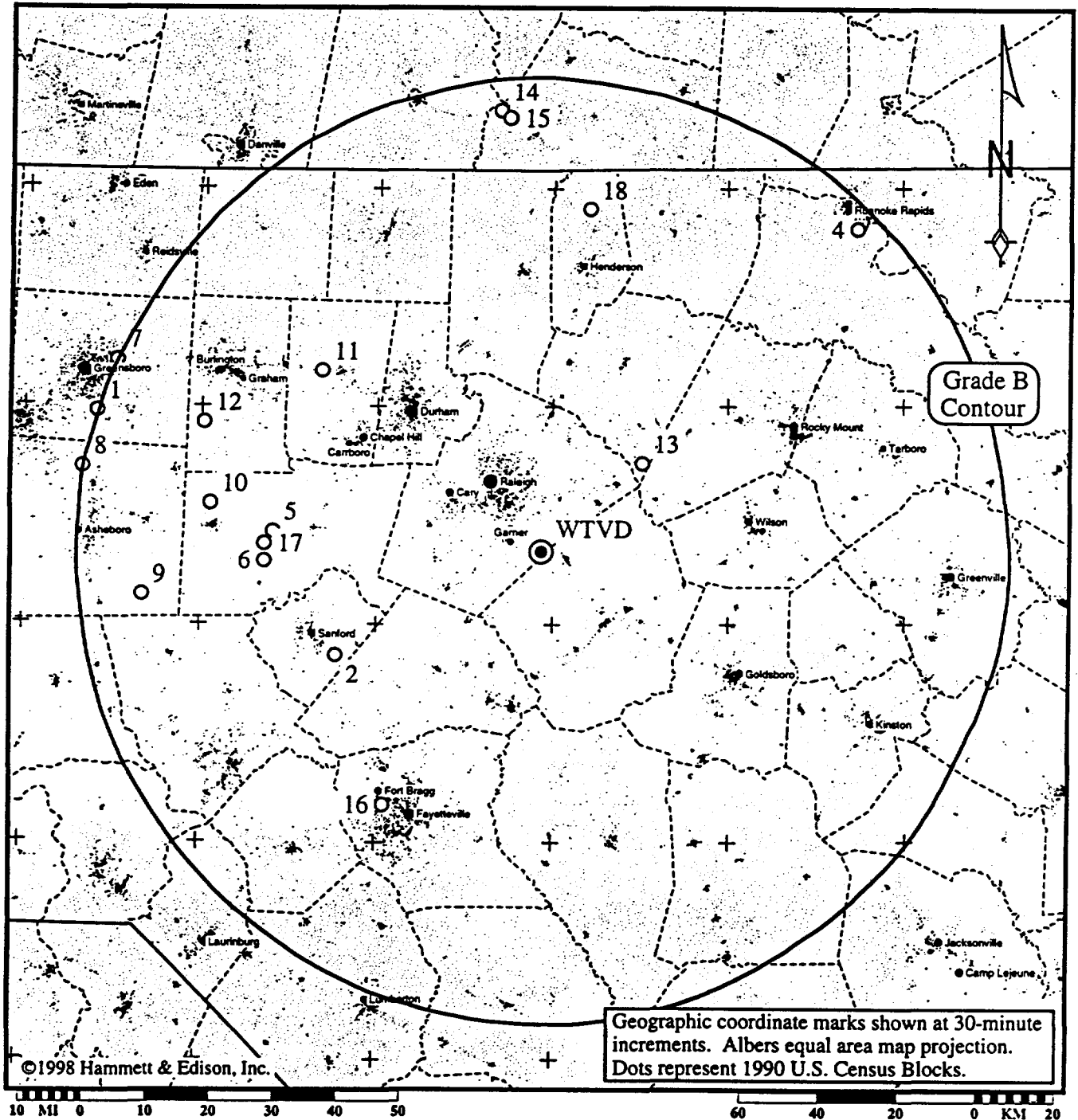
7/20/2002



List Of Sites Tested

Column 1 Location	Column 2 Behr dBu Measurement	Column 3 Distance From Tower (Miles)
Site 15 – Schwaiger Buffalo Junction, VA	40.5	68.8
Site 14 – Yancey Buffalo Junction, VA	56.9	70.1
Site 13 – Bersagel Zebulon, NC	70.7	21.4
Site 9 – Deaton Seagrove, NC	62.7	64.0
Site 16 - Ruff Fayetteville, NC	63.0	47.3
Site 2 - Barnett Sanford, NC	55.4	36.7
Site 5 - King Pittsboro, NC	71.4	42.9
Site 12 - Fuller Snow Camp, NC	61.5	57.6
Site 18 - Lovas Henderson, NC	48.6	54.7
Site 4 - Jackson Roanoke Rapids, NC	65.6	71.8
Site 11 - Lloyd Efland, NC	63.8	45.3
Site 10 - Gatlin Siler City, NC	57.5	53.3

Map Showing Measurement Locations



Statement of Experience

Lawrence Behr, CEO of Lawrence Behr Associates, Inc. of Greenville, North Carolina, has over 40 years of experience in broadcast and mobile communications engineering. He has taken, or supervised the taking, of signal strength measurements on many types of transmitting facilities, including radio and television. These measurements have been employed to determine broadcast coverage, interference and signal quality. His measurements have been accepted by the Federal Communications Commission as the basis of regulatory approvals for radio and television facility applications. He has conducted measurements and/or evaluations for the U.S. Army, Navy, and Air Force to ascertain the performance of national security facilities.

Mr. Behr has served as an expert witness in matters relating to broadcast technical regulation, signal measurements, radio frequency health issues, propagation and allocations. He has qualified as an expert witness before the Federal Communications Commission and State and Federal Courts.

Mr. Behr has been a frequent presenter on broadcast and wireless technology to conferences and seminars sponsored by the Society of Broadcast Engineers, the National Association of Broadcasters, IEEE, CIRT, and others.

Mr. Behr has held participation in various professional societies, including National Association of Radio and Telecommunications Engineers (NARTE), Senior Member; Society of Broadcast Engineers (SBE), Senior Charter Member; Society of Cable Television Engineers (SCTE), Senior Member; and Armed Forces Communications and Electronic Association (AFCEA). He is an SBE Certified Senior Broadcast Engineer, holds a NARTE Engineer First Class license with radio and wireless endorsements and is also a NARTE certified Electromagnetic Compatibility Engineer. Mr. Behr presently serves as a member of the Board of Directors of NARTE. For over 40 years, he has held the Federal Communications Commission First Class Radiotelephone license.

He is a Commissioner of the North Carolina Agency for Public Telecommunications and a panel member of the University of Southern California, Center for Futures Research, a panel of some 100 telecommunications experts from across the United States. He is the recipient of honors and awards, which include the Free Kuwait Medal for his efforts in establishing broadcast installations after the Gulf War.

Since 1963, his firm Lawrence Behr Associates, Inc., has provided, under his direction, expert engineering consulting services to an international radio and television broadcast clientele. These services have included the design of television broadcast facilities, regulatory submissions, and testing services.

Mr. Behr's business career includes ownership in radio and television stations, as well as in various wireless cable television enterprises. He is an amateur radio operator, K4JRZ, and an instrument-rated private pilot.